REMARKS/ARGUMENTS

STATUS OF CLAIMS

In response to the Office Action dated October 13, 2006, claims 1, 2 and 5 have been amended, and claim 13 had been added. Claims 1-13 are now pending in this application. No new matter has been added.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

I. Claims 1-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hunter et al. (US 2001/0026251) in view of Yumoto (US 2002/0195964).

II. To expedite prosecution, independent claim 1 has been amended to recite:

> An image display apparatus comprising:
> a display region having a plurality of pixels, each pixel including
> a current-controlled light emitting element that
> emits light with a brightness corresponding to a current flowing in the current-controlled light emitting element,
> a driver element that includes at least first and second terminals and controls the current flowing into the electric light emitting element based on a potential difference applied between the terminals, and
> a data line that supplies a potential to the first terminal, and a conductive member that is electrically connected to the second terminal; and
> a threshold voltage obtaining unit that is arranged outside the display region and obtains a threshold voltage of the driver element based on the potential of the conductive member corresponding to an amount of charges supplied from a current source to the second terminal.

Neither Hunter et al. nor Yumoto discloses the threshold voltage obtaining unit exists outside the display region. In the image display apparatus of Hunter et al. and Yumoto, means for obtaining the threshold voltage of the drive element exist ***inside*** each pixel of the display region, **NOT** outside the display region. Consequently, amended independent claim 1 is patentable over Hunter et al. and Yumoto, considered alone or in combination.

Claims 2-12 depend directly or indirectly from amended independent claim 1. Therefore, claims 2-12, as amended, are patentable over Hunter et al. and Yumoto also. Furthermore, Applicants maintain that Hunter et al. and Yumoto fail to disclose certain elements recited in claims 2 and 4-7, as amended.

For example, Hunter et al. does not disclose the conductive member whose potential changes by accumulating charges supplied from the current source through the driver element and the current-controlled light emitting element after the driver element becomes on-state **(see amended claim 2)**. In the image display apparatus of Hunter et al., current (I_{in}) supplied from the current source to the conductive member does **NOT** pass through the current-controlled light emitting element when the threshold voltage of the driver element is being obtained.

Hunter et al. does **NOT** disclose that the threshold voltage obtaining unit obtains a threshold voltage based on potentials of the conductive member at two or more different times **(see claim 4)**. The image display apparatus in Hunter et al. obtains the threshold voltage of the drive element by setting the potential different between the gate and source of the driver element to the threshold voltage based on potential of the conductive member at one-time when the driver element is set OFF. In contrast, claim 4 requires the threshold voltage of the driver element is

obtained by using the potential of the conductive member at two or more different times before the driver element becomes the off-state.

Hunter et al. does **NOT** disclose that the threshold voltage obtaining unit obtains a threshold voltage using a total sum of a capacitance of the second terminal and a capacitance of a capacitor electrically connected to the conductive member and a potential applied to the first terminal, as parameters, (**see amended claim 5**).

Neither Hunter et al. nor Yumoto discloses that the threshold voltage obtaining unit obtains the mobility of drive element in a current passage portion of the driver element and a coefficient (**see claim 6**).

Yumoto discloses at paragraph [0090] "although the mobility μ, the gate capacitance Cox, and the threshold value voltage Vth in the equation (6) and the equation (7) are generally varied among data lines or manufactured panels, the value of the current fed by the current bias circuit according to the second concrete example is not dependent on these parameters". However, this sentence in Yumoto merely means a bias current value is not dependent on mobility μ and others. That is, the image display apparatus in Yumoto does **NOT** obtain the mobility μ of the driver element.

Hunter et al. does **NOT** disclose a database in which potentials of the conductive member and threshold voltages of the driver element are associated with each other and the threshold voltage obtaining unit obtains a threshold voltage by referring to the database (**see claim 7**).

In view of the above, the allowance of claims 1-12, as amended, is respectfully solicited.

NEW CLAIM

New independent claim 13 is submitted and recites:

> An image display apparatus comprising:
> a plurality of pixels, each pixel including
> a current-controlled light emitting element that emits light with a brightness corresponding to a current flowing in the current-controlled light emitting element,
> a driver element that includes at least first and second terminals and controls the current flowing into the electric light emitting element based on a potential difference applied between the terminals, and
> a data line that supplies a potential to the first terminal, and a conductive member that is electrically connected to the second terminal; and
> a threshold voltage obtaining unit that calculates a threshold voltage of the driver element based on the potential of the conductive member corresponding to an amount of charges supplied from a current source to the second terminal.

Hunter et al. discloses the potential difference between the first and second terminals of the driver element is set to the threshold voltage. However, Hunter et al. does **NOT** disclose the threshold voltage of the driver element is calculated by using the potential of the conductive member. In contrast, the image display apparatus of independent claim 13 requires that the threshold voltage obtaining unit calculates the threshold voltage of the driver element by using the potential of the conductive member. Yumoto also does not disclose this feature.

Thus, new independent claim 13 is patentable over Hunter et al. and Yumoto, and its allowance is respectfully solicited.

CONCLUSION

Accordingly, it is urged that the application, as now amended, is in condition for allowance, an indication of which is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise, Reg. No. 34,523 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: January 12, 2007

Respectfully submitted,

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